

Appl. No. 09/424,636
Amdt. After Final Rejection Dated December 12, 2003
Reply to Office Action of September 12, 2003

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

22. (Previously Presented) An equipment for transferring a paper/board web in a paper or board machine, said equipment comprising:

a transfer belt structured and arranged for securing a web by means of adhesion;

a roll that forms a press nip in a last press section of said paper or board machine;

wherein said belt is structured and arranged such that said web is passed from said last press further in said paper or board machine while said web is adhered to said belt and wherein said belt is structured and arranged such that a thermal energy is supplied to said web while said web is adhered to said belt;

a plurality of alignment rolls;

a roll having at least one impingement drying unit arranged after said press nip and before said first group of drying cylinders;

a press felt which is passed through said press nip;

wherein said belt passes over said alignment rolls, through said press nip, and over said roll having at least one impingement drying unit and over said first group of drying units while being adhered to said belt.

23. (Previously Presented) An equipment as claimed in claim 22, further comprising:

a dryer section comprising at least one group of drying cylinders;

a plurality of reversing rolls structured and arranged to cooperate with said drying cylinders;

and wherein said belt is passed over said drying cylinders and said reversing cylinders.

24. (Previously Presented) An equipment as claimed in claim 22, wherein said belt is structured and arranged to be impenetrable by air and water.

25. (Previously Presented) An equipment as claimed in claim 23, wherein said reversing rolls are smooth faced rolls and wherein said web runs over said reversing rolls while adhered to said belt.

26. (Previously Presented) An equipment as claimed in claim 23, wherein said dryer section comprising at least one group of drying cylinders includes a first group of drying cylinders; and

wherein said belt is structured and arranged as a closed loop in said first group of drying cylinders; and

wherein said web is passed on said belt through said last press in said press section into said first group of drying cylinders as a closed web draw supported by said transfer belt.

27. (Previously Presented) An equipment as claimed in claim 26, wherein said dryer section comprising at least one group of drying cylinders further comprises a second group of drying

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cylinders arranged after said first group of drying cylinders, second group of drying cylinders comprising:

a conventional wire draw; and

a plurality of suction rolls; and

wherein said web is transferred into said second group of drying cylinders as a closed draw and wherein said web is passed over said second group of drying cylinders and said plurality of suction rolls on said conventional wire draw; and

wherein said web is maintained in contact with said conventional wire draw over said suction roll by means of a pressure produced by said suction rolls.

28. (Previously Presented) An equipment as claimed in claim 26, wherein said first group of drying cylinders comprises impingement drying units through which a drying medium is passed into the web.

29. (Currently Amended) An equipment for transferring a paper/board web in a paper or board machine, said equipment ~~as claimed in claim 29,~~ further comprising:

a transfer belt structured and arranged for securing a web by means of adhesion;

a roll that forms a press nip in a last press section of said paper or board machine;

wherein said belt is structured and arranged such that said web is passed from said last press further in said paper or board machine while said web is adhered to said belt and wherein said belt

is structured and arranged such that a thermal energy is supplied to said web while said web is adhered to said belt;

a dryer section comprising at least one group of drying cylinders;

a plurality of reversing rolls structured and arranged to cooperate with said drying cylinders;

wherein said belt is passed over said drying cylinders and said reversing cylinders;

wherein said dryer section comprising at least one group of drying cylinders includes a first group of drying cylinders; and

wherein said belt is structured and arranged as a closed loop in said first group of drying cylinders; and

wherein said web is passed on said belt through said last press in said press section into said first group of drying cylinders as a closed web draw supported by said transfer belt;

a plurality of alignment rolls;

a roll having at least one impingement drying unit arranged after said press nip and before said first group of drying cylinders;

a press felt which is passed through said press nip;

wherein said belt passes over said alignment rolls, through said press nip, and over said roll having at least one impingement drying unit and over said first group of drying units while being adhered to said belt.

30. (Previously Presented) An equipment as claimed in claim 22, further comprising:

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a linear run having a plurality of support rolls arranged after said press nip;
an impingement drying unit arranged after said liner run, said impingement drying unit comprising an oblong hood;
a drying section arranged after said impingement drying unit;
wherein said web is passed while being adhered to said belt over said linear run and over said impingement drying unit and then is transferred from said belt into said drying section arranged after said impingement drying unit.

31. (Previously Presented) An equipment as claimed in claim 22, further comprising:
a plurality of support rolls arranged after said press nip, said plurality of support rolls being structured and arranged so that belt passes over said plurality of support rolls along a vertical path;
a first impingement drying unit arranged along said vertical path;
a second impingement drying unit arranged after said first impingement drying unit and below said vertical path;
wherein said belt is passed over said plurality of support rolls, over said first impingement unit, downwards and over said second impingement unit and into said first group of drying cylidners.

32. (Previously Presented) An equipment as claimed in claim 22, wherein said last press nip is a equalizing press with no felt.

33. (Currently Amended) A method in the transfer of a web in a paper or board machine comprising the steps:

passing the web on a face of a transfer belt, wherein said web is secured to said transfer belt by means of adhesion;

passing said belt over a last press of a press section in said paper or board machine so that said transfer belt is in contact with a press roll of said last press;

passing said web from said last press in said press section along with said transfer belt over a linear run arranged after said last press, said linear run including a plurality of support rolls;

passing said web and said transfer belt over an impingement drying unit arranged after said liner run, said impingement drying unit having hood through which a drying medium is passed in order to dry the web; and

after said impingement drying unit passing said web from said transfer belt into a first group of drying cylinders of a drying section of said paper or board machine.

34. A method as claimed in claim 33, further comprising:

passing said web over a first drying cylinder in a first group of drying cylinders in a dryer section of said paper or board machine while said web is adhered to said belt;

passing said web over a reversing roll arranged after said first drying cylinder while said web is adhered to said belt;

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passing said web over a second drying roll arranged after said reversing roll in said group of drying cylinders.

35. (Previously Presented) A method as claimed in claim 34, wherein:

said belt has been passed as a closed draw over said press nip, said first drying cylinder, said reversing roll and said second drying roll.

36. (Previously Presented) A method as claimed in claim 33, further comprising:

passing said belt over an impingement drying unit arranged in connection with a reversing roll.

37. (Previously Presented) A method as claimed in claim 34, wherein said reversing rolls are suction rolls, said suction rolls having a smooth face, and further comprising:

passing said web from said first group of drying cylinders to a conventional group of drying cylinders provided with a single wire draw;

passing said web over a first drying cylinder in said conventional group of drying cylinders;

passing said web from said first drying cylinder over a first suction roll;

passing said web from said first suction roll over a second drying cylinder in said conventional group of drying cylinders;

passing said web a plurality of alternating suction rolls and drying rolls, wherein said suction

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rolls are used as reversing rolls.

38. (Previously Presented) A method as claimed in claim 37, wherein said web is transferred in said first group of drying cylinders as a closed loop over said drying cylinders, and wherein said drying cylinders are steam-heated drying cylinders, and
wherein said press nip is an extended-nip press.

39. (Previously Presented) A method as claimed in claim 33, wherein said transfer belt is passed through said last press nip as a closed loop, further comprising:

passing said transfer belt and web over a roll having a large diameter, said roll having a large diameter including at least one impingement drying unit through which a drying medium is passed to dried said web;

passing said web from said roll having a large diameter to a first drying group in a dryer section of said paper or board machine.

40. (Currently Amended) A method in the transfer of a web in a paper or board machine as claimed in claim 33, further comprising the steps:

passing the web on a face of a transfer belt, wherein said web is secured to said transfer belt by means of adhesion;

passing said belt over a last press of a press section in said paper or board machine so that said transfer belt is in contact with a press roll of said last press;

passing said web from said last press in said press section along with said transfer belt over a linear run arranged after said last press, said linear run including a plurality of support rolls;

passing said web and said transfer belt over an impingement drying unit arranged after said liner run, said impingement drying unit having hood through which a drying medium is passed in order to dry the web; and

after said impingement drying unit passing said web from said transfer belt into a first group of drying cylinders of a drying section of said paper or board machine.

41. (Currently Amended) A method in the transfer of a web in a paper or board machine as claimed in ~~claim 33~~, further comprising the steps:

passing the web on a face of a transfer belt, wherein said web is secured to said transfer belt by means of adhesion;

passing said belt over a last press of a press section in said paper or board machine so that said transfer belt is in contact with a press roll of said last press

passing said web along with said transfer belt from said last press over a plurality of support rolls that run in a vertical path;

passing said web and said transfer belt over a first impingement drying unit arranged in said vertical path;

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passing said web along with said transfer belt over a last one of said plurality of support rolls in said vertical path over a plurality of support rolls in a downward path;

passing said web along with said transfer belt over a second impingement drying unit arranged in said downward path; and

passing said web after said second impingement drying unit from said belt into a first group of drying cylinder of a dryer section of said paper or board machine.